



SmartSDR™ for Maestro v2.3.9 Release Notes

July 6, 2018

SmartSDR for Maestro v2.3.9 is a general release intended for use with the FLEX-6400™, FLEX-6400M™, FLEX-6600™, FLEX-6600M™, FLEX-6700™, FLEX-6300™, FLEX-6500™, FLEX-6700R™ and FLEX-6700™ software defined radios which contains new features and software defects introduced in previous versions of SmartSDR.

Please consult the [Maestro Users Guide](#) for details on using the new and updated features of SmartSDR for Maestro for the optimal operating experience.

Please see the “Important Release Details” section before upgrading. There are also several best practice recommendations that will facilitate a smooth transition to the new version of SmartSDR for Maestro.

What's New in SmartSDR v2.3.9

Intermittent and Random Firmware Crashes: Several build process changes have been made that may address the recently reported intermittent firmware crashing behavior. These changes may not address all of the issues reported, therefore, we will continue to investigate the root cause of issue #6450.

Fixed Elevated Panadapter and S-meter for the FLEX-6000(M): An FPGA gain scaling issue resulted in the s-meter and the panadapter levels being approximately 7 dB higher than actual signal levels. This issue has been addressed in SmartSDR v2.3.9

Fixed Reported Network Packet Loss over a VPN: Due to the network changes introduced in SmartSDR v2.3.7 to address issues using SmartLink over networks that do not allow packet fragmentation, the network Health indicator was incorrectly reporting packet loss values, particularly when VPNs were being used. The logic used to determine network health metrics has been modified to accommodate the new VITA-49 network transport characteristics resulting in restoring previous VPN throughput performance.

Added Zoom to Segment on Panadapter: A Zoom to Segment button has been added to panadapter display on SmartSDR for Windows and the Maestro.

Fixes for the Spots Feature: Multiple Spot fixes are included in this release. Please see the ChangeLog for more details.

Bug Fixes: There have been other bug fixes in this release. Please see the SmartSDR ChangeLog for a complete listing.

Important Release Details

Updated Ethernet MAC: Starting in v2.1.30 and going forward, the Ethernet MAC address used by the radios and Maestro in the radio will all start with a FlexRadio OUI (00:1C:2D). **Due to this change, any existing Static DHCP assignments in Local Area Network routers that rely on the old MAC address will need to be revisited.** If a static IP address is assigned to the FLEX-6000, a reboot of your router may be needed to clear routing and ARP tables. Also, if the IP address of the radio changes as a result of this (which is very likely), **be sure to check any manual Port Forwarding settings related to SmartLink.**

SmartSDR v2 requires a software license installed on the radio before it can be used with a FLEX-6000: The following have been pre-authorized for SmartSDR v2 and do not require the purchase of a license:

- Limited Edition (LE) FLEX-6700 and FLEX-6500 radios
- All radios sold after May 19, 2017

All other radios require the purchase of a software license for the radio. Please see the section “Purchasing a SmartSDR Software License for your FLEX-6000” for instructions on how to purchase a license.

Connecting the Maestro to a Wired Ethernet Connection: In order to use the wired Ethernet connecting with your Maestro, it is now required that you power the Maestro using the AC power adapter and not an internal battery bank. Only a Wi-Fi connection is allowed if you are running off of a battery bank.

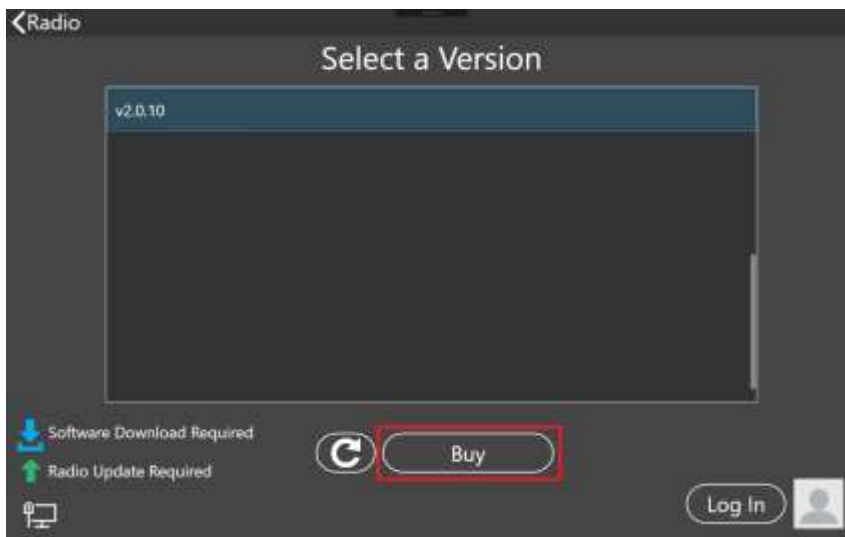
Backup your profiles before upgrading: This is covered in detail below in the *Best Practices for Installing / Uninstalling SmartSDR v2* section. Having a good backup of your profiles is always a best practice before doing any SmartSDR software upgrade in the event you must revert to a previous version of the software or need to do a factory reset of the radio.

Cold boot the radio after upgrading to SmartSDR v2.3.9: A “cold boot” is accomplished by shutting down the radio and then removing DC power from it momentarily. This process is covered in detail in the *Best Practices for Installing / Uninstalling SmartSDR v2* section but is added here for emphasis. There are several internal processor subsystems that are upgraded by SmartSDR v2.3.9 and it is imperative that they all restart properly after the upgrade.

For a detailed description of the SmartSDR for Maestro software upgrade process, please refer to the [Maestro Users Guide](#).

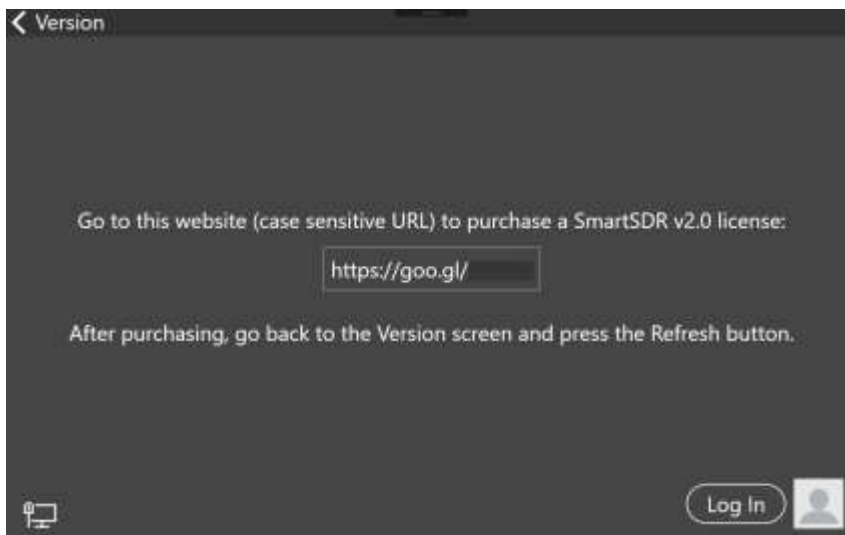
Purchasing a SmartSDR Software License for your FLEX-6000

Obtaining a SmartSDR v2 software license is easy and convenient. After downloading and installing a 2.x Maestro software version, At the Select, a Version screen select the version 2 software just installed. If you need to purchase a license to run the software, the Buy button will appear as shown below.

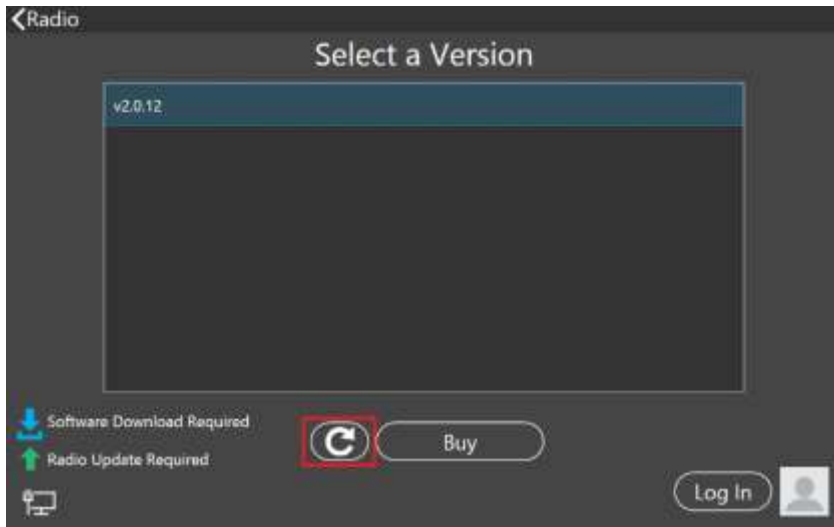


Owners of Limited Edition radios or radios purchased with a version 2 license will see a Run button instead of a Buy button. If you see a Run button, tap on the Radio link at the top left of the screen to return to the Select Radio to upgrade the radio's firmware.

Tapping the Buy button will generate and show a shortened URL that must be plugged into a browser manually. Note that the URL is case sensitive and unique for each radio.



When the license purchase is complete, tap the Version link at the top left corner of the screen to go back to the Select a Version screen. At the Select, a Version screen, tap the refresh button (circular icon) to update the license information for the radio. It may take up to a minute after the purchase completes before Maestro finds the new license.



When the license is updated, the refresh button will disappear and the Buy button will change to a Run button. Tap the Run button to connect SmartSDR v2 for Maestro to your FLEX-6000.

Best Practices for Installing / Uninstalling SmartSDR

Best Practices for installing a new version of SmartSDR for Maestro

In preparation for the upgrade to SmartSDR for Maestro, always backup your current Global and TX Profiles. Backing up profiles via the Maestro is not supported; you will need to use SmartSDR for Windows to export profile data. Please refer to the SmartSDR Software User's Guide for detailed instructions related to exporting your profiles to a file on your PC. Whenever you upgrade to a newer version of the SmartSDR ecosystem, there is a database conversion program that runs automatically to convert an older version of the Profile database to the new format or schema. *However, the reverse is not true.* If you have to revert to a previous version of SmartSDR, the older version will not be able to automatically downgrade the database schema. In order to recover your previously created profiles after a software version downgrade, an import of profile data created using the version of SmartSDR you are downgrading to is required for proper operation of your radio.

Ensure your Maestro has a reliable power source. When upgrading your Maestro, make certain that the AC power adapter is used to power the unit to prevent the Maestro from powering down during a software update.

Ensure your Maestro has a reliable network. The Maestro and radio firmware are upgraded entirely through the network connection. When upgrading a Maestro, a wired Ethernet connection is recommended. A wired connection from the Maestro to your Ethernet network is faster and more reliable than a Wi-Fi connection.

Power cycle the FLEX-6000 before installing new a new version SmartSDR for Windows. To ensure a seamless upgrade of the entire SmartSDR software ecosystem, it is recommended that you power cycle your radio before installing the SmartSDR for Windows software on your PC.

"Cold Boot" your FLEX-6000 after upgrading the radio firmware. When upgrading the radio firmware, there may be updates to various internal subsystems. Powering off the radio, disconnecting it from DC power for several seconds, reconnecting DC power and then powering up the radio normally after updating the firmware ensures that all processors reboot properly. This process is known as a "cold boot".

What to do if the firmware updates do not finish after 5 minutes? On rare occasions, the update status may not recognize the completion of the firmware update. If the radio has not successfully completed the firmware updates after 5 minutes, power off the radio by pressing the power button. The firmware update should complete normally.

Note: While this should be extremely unusual if a single press on the power button does not shut down the radio, remove the DC power source from the radio to power down all processors. Restore DC power and reboot the radio.

SmartSDR Documentation Available at www.flexradio.com

The following documentation and how to guides for SmartSDR v2.3.9 are available as a convenient download from the FlexRadio website.

Maestro Quick Start Guide

http://www.flexradio.com/downloads/maestro_qsg-pdf/

Maestro User Guide

<http://www.flexradio.com/downloads/maestro-user-guide-pdf/>

SmartLink for Maestro Quick Start Guide

<http://www.flexradio.com/downloads/smartlink-quick-start-guide-for-maestro-pdf/>

SmartSDR for Maestro Changelog

http://www.flexradio.com/downloads/maestro_v2_changelog-txt/

Maestro Fixed Angle Stand Installation Guide

<http://www.flexradio.com/downloads/maestro-fixed-angle-stand-installation-guide-pdf/>

Maestro Tilt Hinged Feet Installation Guide

<http://www.flexradio.com/downloads/maestro-tilt-hinged-feet-installation-guide-pdf/>

USB Cable Interface Guide

<http://www.flexradio.com/downloads/usb-cable-interface-guide-pdf/>

Obtaining Technical Support

If you encounter any issues installing or operating SmartSDR for Maestro with FlexRadio Systems' Signature Series software defined radios, please use our online Community (<https://community.flexradio.com/>) to query for information about SmartSDR for Maestro and the FLEX-6000. If you need assistance using the Community, please refer to the community topic "[How to use the FlexRadio Systems Support Community](#)".

If you are unable to find an existing answer to your issue via the Community, please contact FlexRadio Systems technical support by opening a HelpDesk support ticket online at <https://helpdesk.flexradio.com/>

For details on how to submit a HelpDesk support ticket, please refer to the following URL: <https://helpdesk.flexradio.com/hc/en-us/articles/202118688-How-to-Submit-a-Request-for-Technical-Support>.

Hours of Operation: Our Technical Support engineers are available Monday-Friday from 7:00am-4:30 pm Central Time. If you contact Support after business hours, on a holiday or weekend, we will respond to your request for assistance during regular business hours in the order your HelpDesk ticket was received.

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